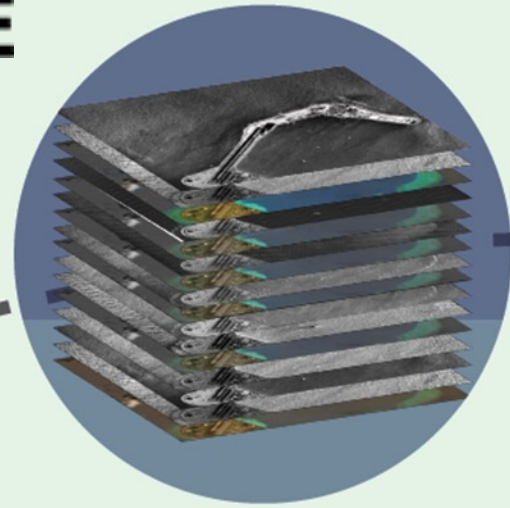




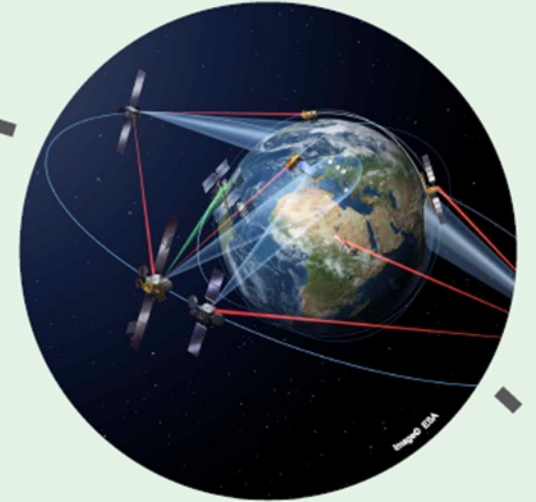
High Resolution



SAR, Optical &
Thermal



All Weather



Near Realtime

ISR using Space 2.0

What makes Suhora different?



Near Real Time Data & Space Analytics



Holistic Approach with SAR/OPTICAL/THERMAL Data



Capabilities to develop solutions and Analytics in different verticals



Speed and accuracy combined with Cost-Effectiveness

Value Proposition for Gol



Building Imaging Constellation for ISR Requirements under Make In India Plan.

Making Data available for ISR requirement using existing capabilities.

Indigenous Mission Planning and Analytics Platform.

1. Constellation Building for India



- High Resolution Optical, SAR & Thermal Satellite Constellation proposal Built for and Operated in India.
- Use ISRO Ground Station for minimum latency
- Deploy RF / AIS payload into Satellogic technology supported New Satellites.
- Local Processing Chain for fastest turn-around time.
- Ready in 12-24 Months
- In-line with MOD requirement
- Cheapest TCO available today
- Capacity Building: Training, Knowledge Transfer

Strategic Partner

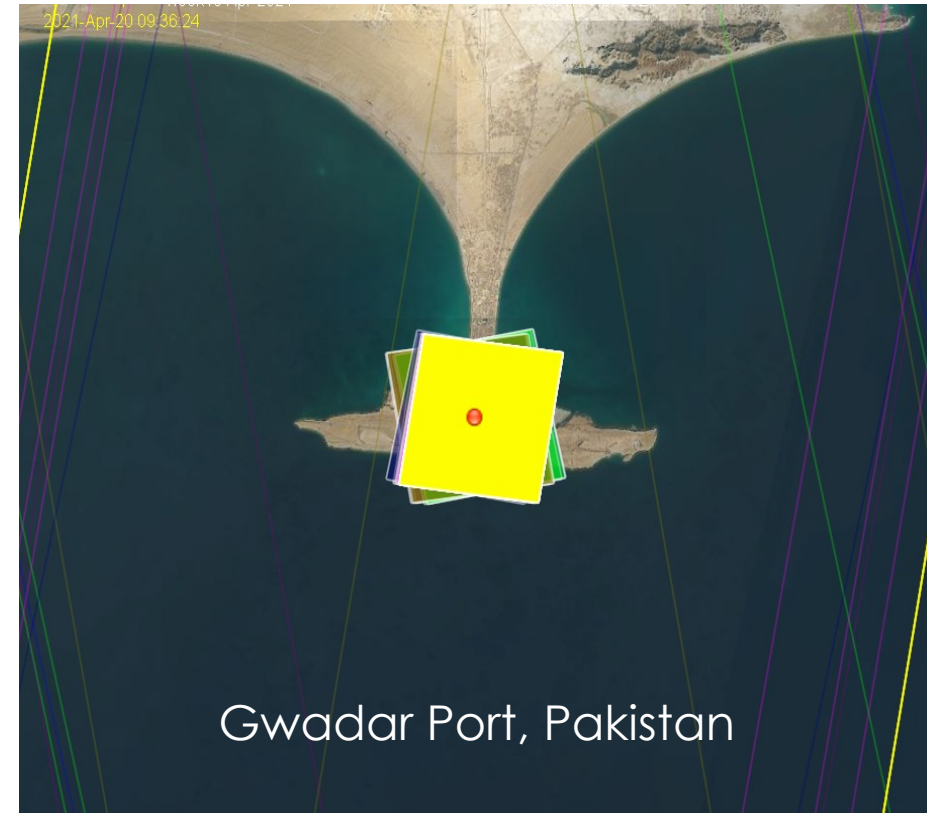
ICEYE **SATELLOGIC**

SatVu

2. Current EO Portfolio



- Dedicated SAR and Optical Satellite
 - 39 Optical Satellite: 70 cm MS / Video
 - 26 SAR Satellites: Up-to 25cm, Wide-Scan, Video Capable
 - Thermal Satellites: 3.5 m resolution, mid-infrared, **Launching Next week**
- Guaranteed collection, Secure tasking, Secure downlink
- Non-ITAR Operation
- 24/7 all weather Surveillance using Optical and SAR Constellation
- Most Cost-Effective Solution available in Market.
- Proposal to use Existing Ground Assets of ISRO.
- Capability to deliver data within One Hour



Can cover any point over Dnl target >10 times per day using Optical and SAR Constellation

3. Mission Planning and Analytics SUHORA space analytics simplified



Tip-n-Cue System

- Seamless Integration and Visualization of Optical, SAR, Thermal, Weather, RF and AIS Satellites
- Intuitive Tip-n-cue system with Surveillance, Tasking, Exploitation and Reporting
- Real time Orbit Visualization and Planning
- Mission ready for Time Critical Workflows
- Tasking Order and Cue Management
- Plug-n-Play Additional Constellation
- Proposal to co-create with MoD under iDEX Program

Analytics

- AI based Surveillance and Monitoring
- Analytics Solutions such as :
 - Ship Detection, AIS Integration
 - Daily SAR Based Change Detection
 - Target Detection
 - Border Monitoring System
 - Thermal Anomaly Detection

Current EO Capabilities



All Weather- SAR

- 26 Satellites
- Over 600,000 sq km of the Indian territory can be accessed per day

Specifications

- Spotlight / Spotlight Extended (25cm)
- StripMap (3m)
- ScanSAR (15m)



Optical(Multi-Spectral)

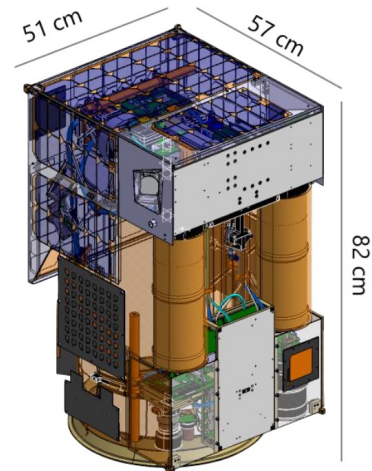
- 39 Satellites
- Over 300,000 sq km of the Indian territory can be accessed per day

Specifications

- 70cm Super resolution
- Spotlight (5x5km), long strip (2000x5km), oblique, tile collection methods
- 25m Hyperspectral



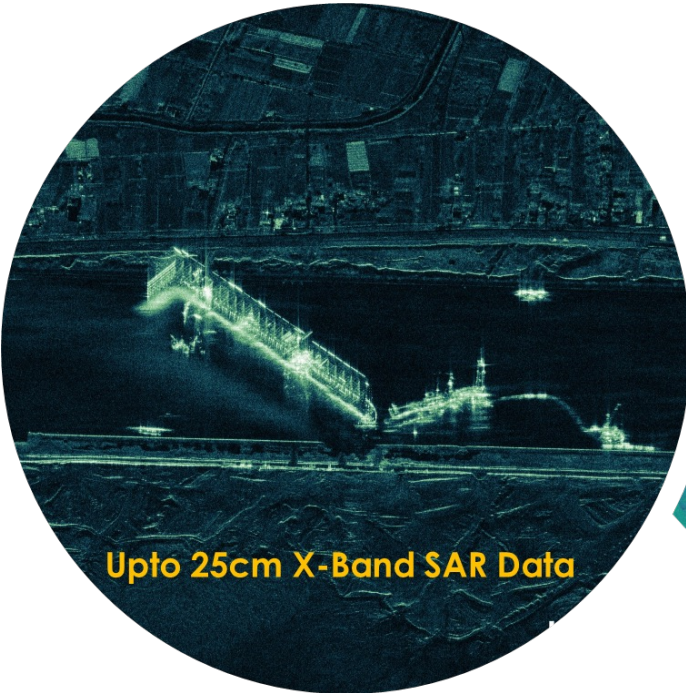
Delivery within 2 Hours in ideal conditions



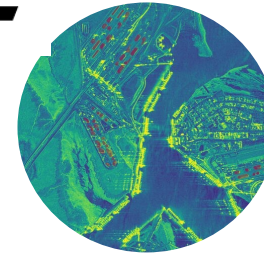
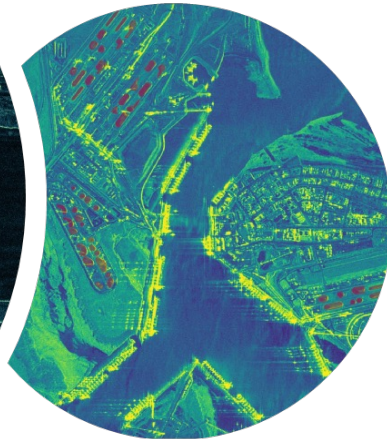
SAR Technology Capabilities



ICEYE



Upto 25cm X-Band SAR Data



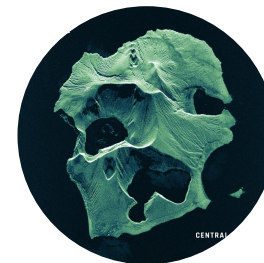
Persistent Monitoring

ICEYE's large constellation of new space satellites unlocks new access to valuable data on any location on Earth – **day and night**, through the clouds, and multiple times per day



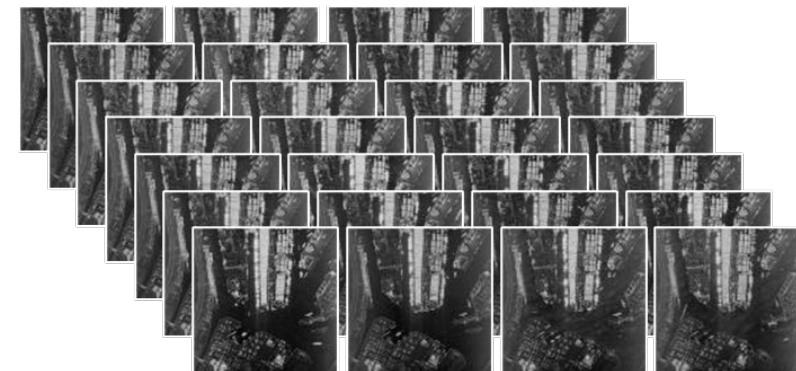
High Resolution and Swath

Very High resolution up to **25 cm** and continuous monitoring of up to **10,000** square kilometers in a single image



Mission Ready

Task ICEYE SAR satellites to access critical data on any location on Earth – day or night and in any weather. The process is simple, and images are usually delivered within **1* hour** of initial request.

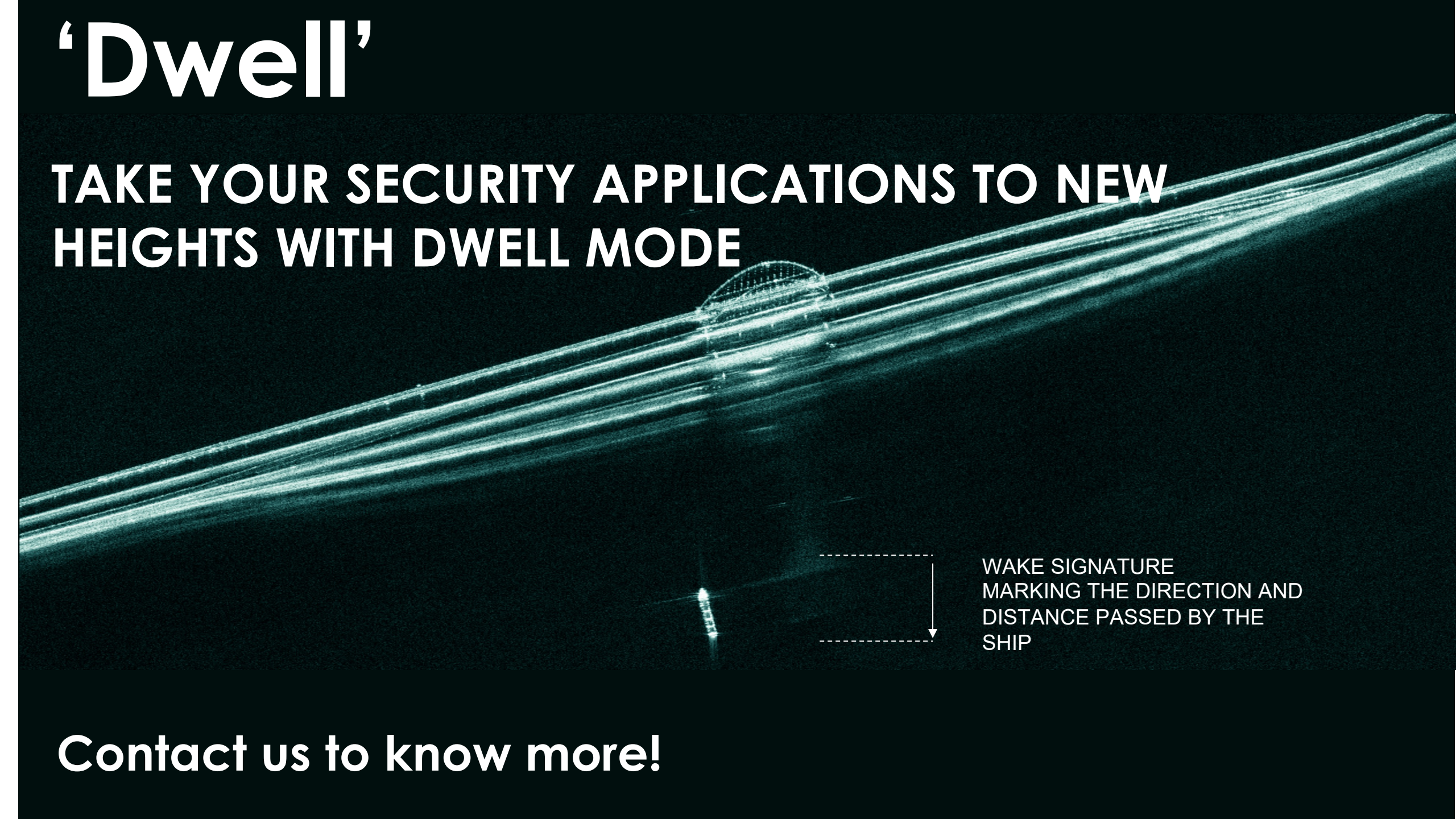


Imagery delivered every 24h

World's First: 'Dwell' Mode

'Dwell'

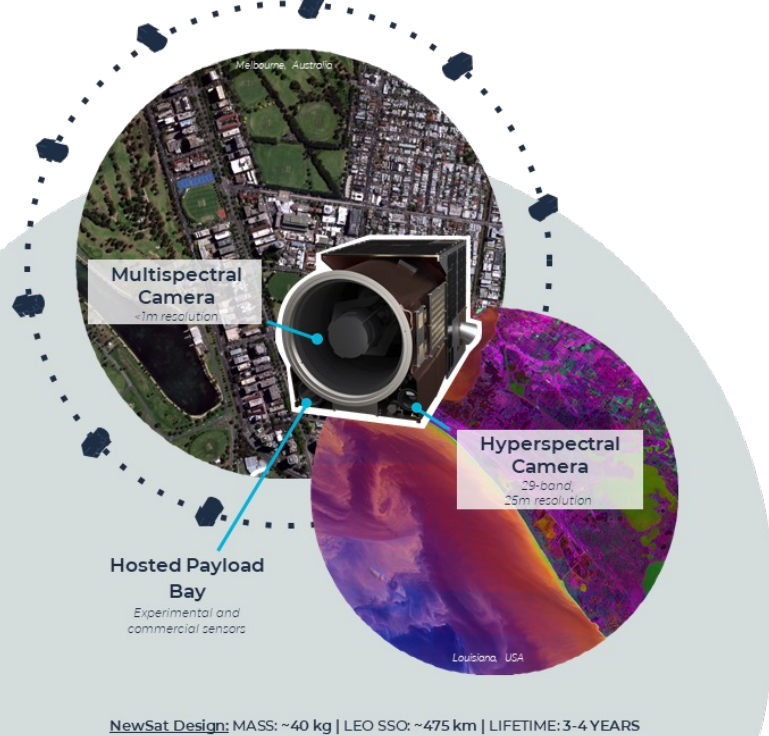
TAKE YOUR SECURITY APPLICATIONS TO NEW HEIGHTS WITH DWELL MODE



WAKE SIGNATURE
MARKING THE DIRECTION AND
DISTANCE PASSED BY THE
SHIP

Contact us to know more!

Optical Technology Capabilities



SATELLOGIC

Roadmap

	2021	2022	2023	2024	2025+
SATELLITES IN ORBIT	17	34	63	139	202
SATELLITE CHARACTERISTICS (GSD RESOLUTION)	0.99m at 470 km	0.70m at 470 km		0.40m at 440 km	0.30m at 330 km
DAILY REVISITS OF POINTS OF INTEREST	4	7	13	28	40
PRODUCT LAUNCHES	DSC	Data Platform	Weekly World Remaps		Daily World Remaps



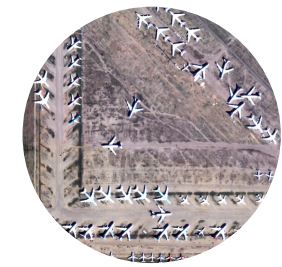
Perfect Combination

More than 4 daily revisits of any point. Patented technology delivers multispectral imagery at **sub-meter resolution**. Industry's **most competitive price point**



Future Proof

Satellogic offer different metered subscription models to deliver data bundles for different industry verticals based on region, end-use, and volume. Satellogic also commits to bring **upto 300+ Satellites by 2025**



Mission Ready

Gain **direct access** to Satellogic's high-frequency, high-resolution satellite imagery, search our image library, order new captures, and stream or download imagery Near Real Time all via web app or API.

Thermal Capabilities



Unique Infrared Constellation

- High Resolution – 3.5m
- Mid-infrared - 3.4-5.0 μm
- Sensitivity - <2K
- Video - up to 60 sec @ 25 frames/sec
- Day & Night Imaging

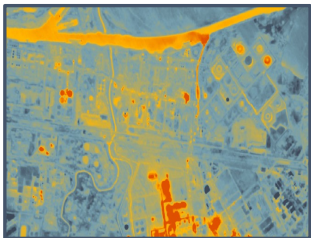
CONSTELLATION

- Launching 11th June 2023
- 8 Satellite constellation - 2 in Polar, 6 in MIO
- 10 – 20 revisits/day over same target
- Global coverage
- Agile bus/camera
- Fully tasked from web-based platform

SatVu

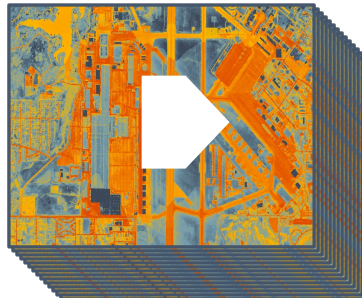
Imaging Modes

4.4km



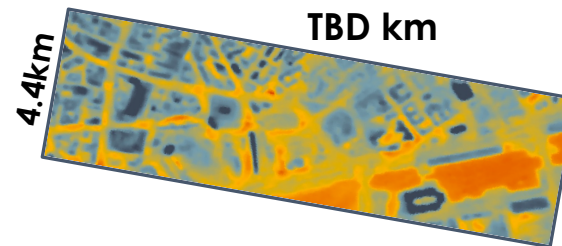
Single Image

3.5 km



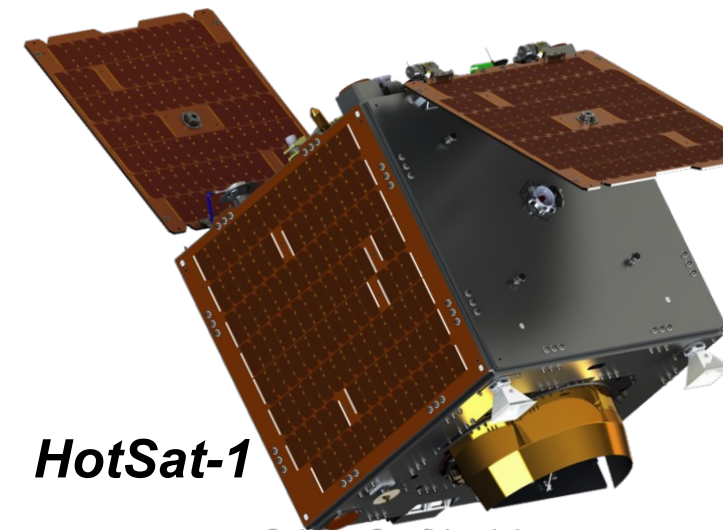
Video Mode

60 secs
@25fps



Strip Mode

TBD km



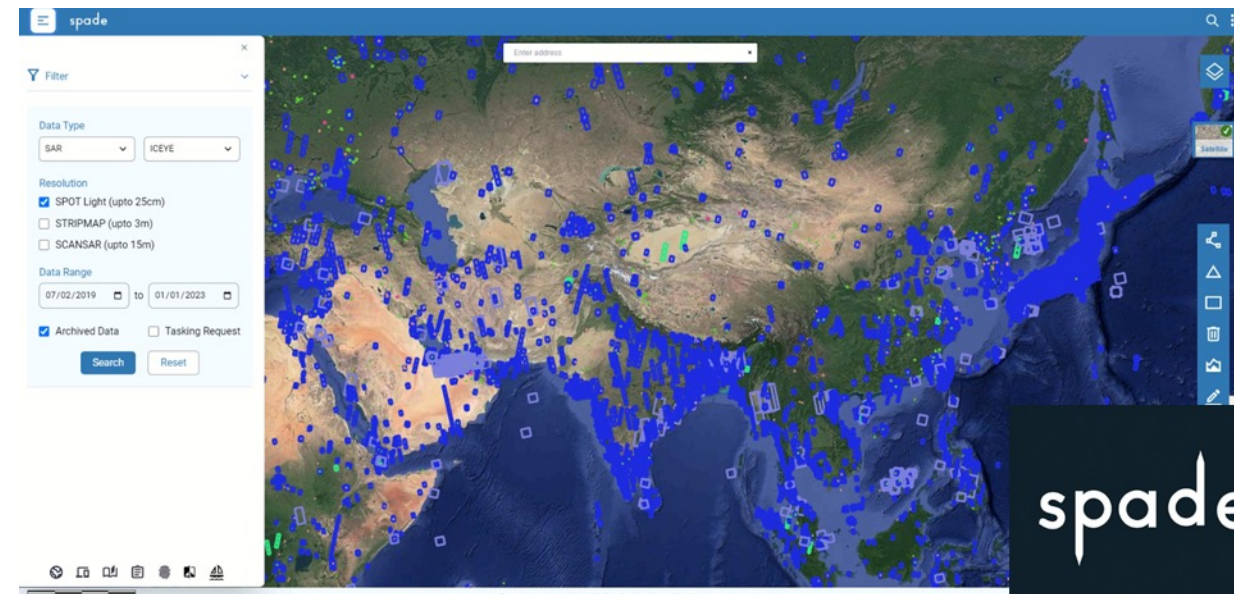
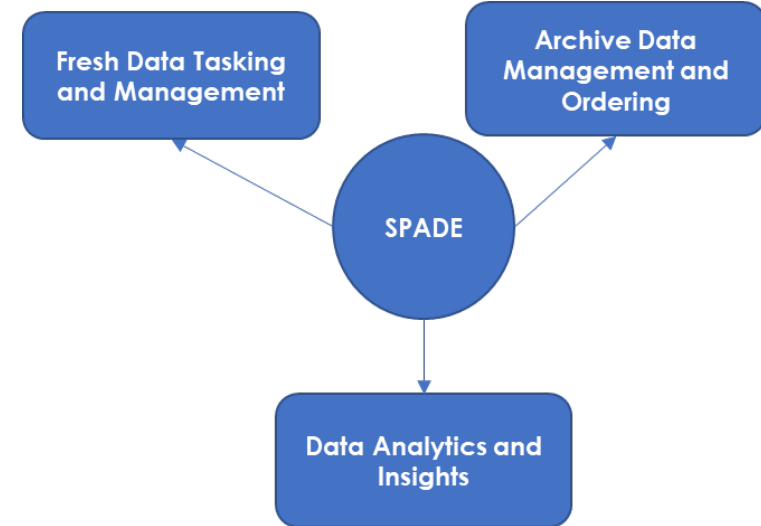
HotSat-1

SPADE: Mission Planning & Analytics



Intuitive **Mission Planning & Analytics** works seamlessly to Task, Download & Process multiple satellite Data

- SPADE brings an efficient **Mission Planning and Tasking Platform**
- Innovative platform that simplifies Earth Observation data collection and processing for Indian Defence and Intelligence agencies
- Multi-sensor Platform
- Unique combination of data sources and intuitive tools.
- Interactive dashboard to manage data subscriptions.
- Secure login
- Speed of data delivery.



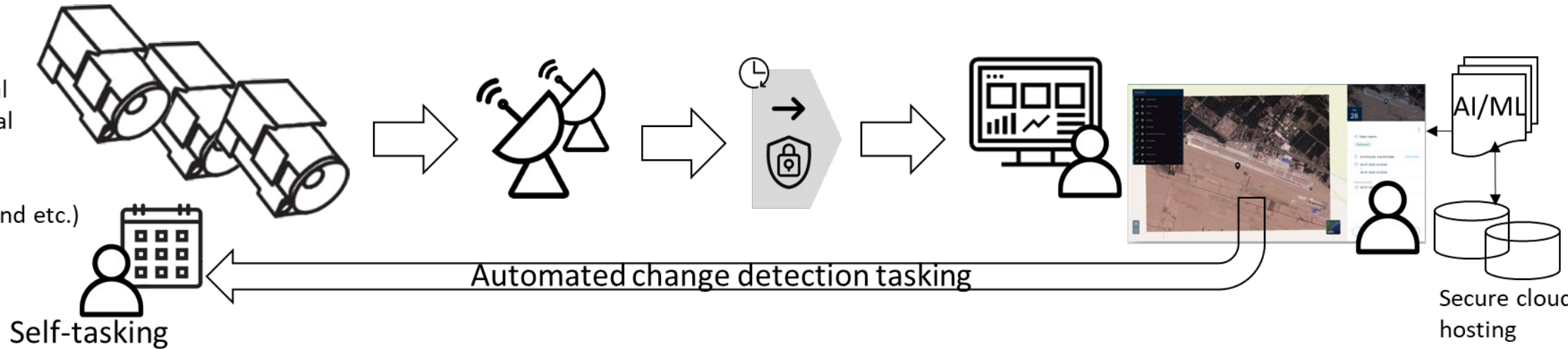
Smart Tip-n-Cue: Workflow



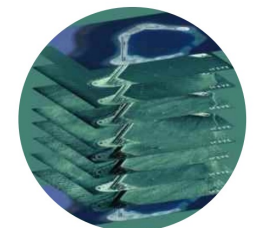
High frequency; Low latency delivery

Sensors

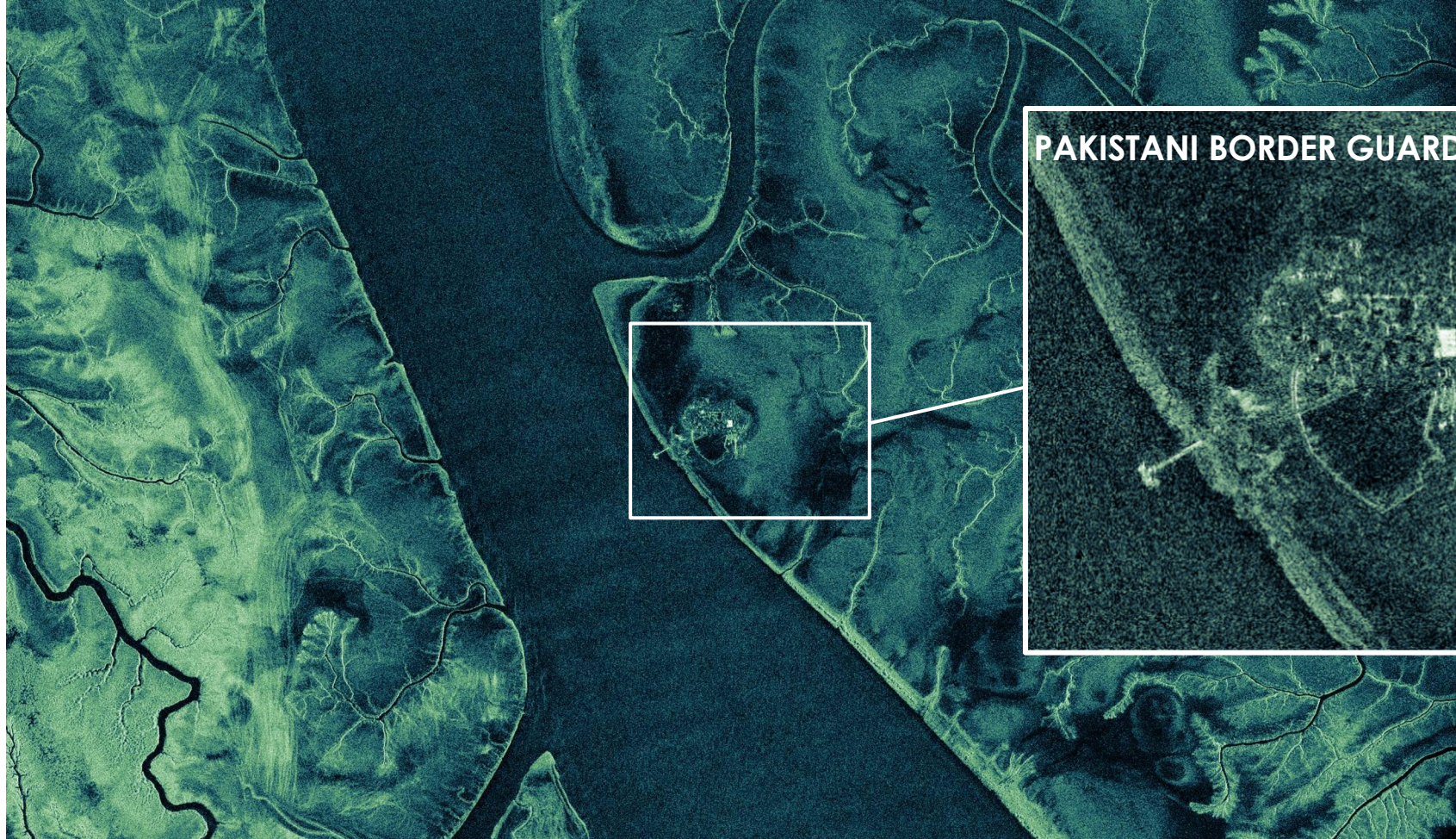
- Multispectral
- Hyperspectral
- SAR
- Video
- RF (AIS, L-band etc.)
- Weather
-



- Smart Tip-n-cue Platform with seamless and intuitive capabilities to task, download and process multiple satellite data.
- Direct Tasking
- Analytics
- Pay Per Use



Border Monitoring and Detection



SIR CREEK, KETI BUNDER SOUTH WILDLIFE SANCTUARY, PAKISTAN

Imaged 2022-06-22 16:58:40 UTC

Imaging mode: SPOT (Left)

Orbit Direction: Ascending

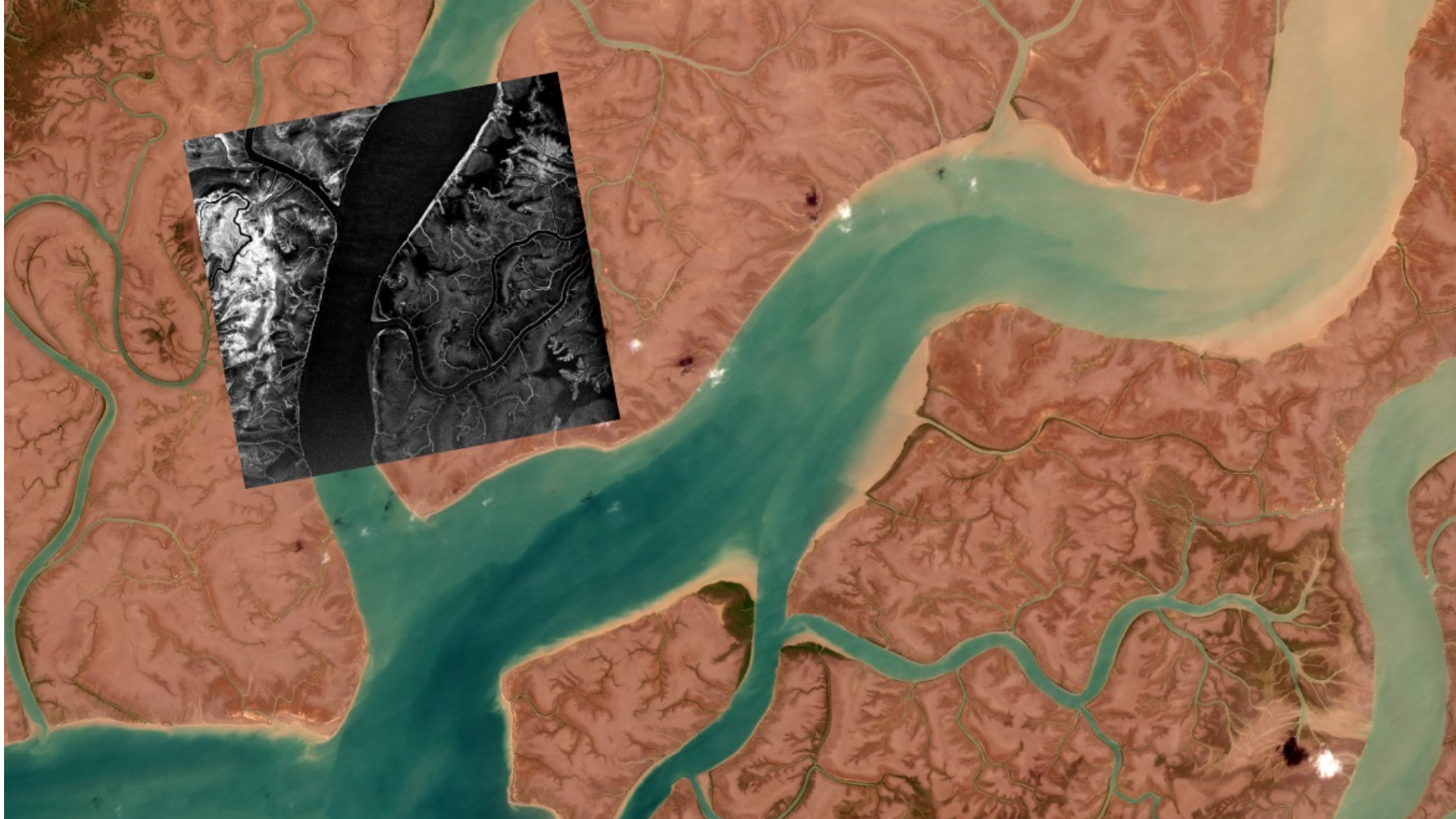
Incidence angle (center): 29.74

Center coordinates (LAT, LON): 23.9197, 68.1994

Site Monitoring and Detection



SAR Complements Optical



**SIR CREEK, KETI BUNDER SOUTH WILDLIFE
SANCTUARY, PAKISTAN**

Site Monitoring and Detection



June 2021



New construction detected along the India-Pakistan Border region since June 2021 to June 2022

July 2022



LOUNDHI, INDIA

Imaged 2022-07-03 05:26:51
UTC

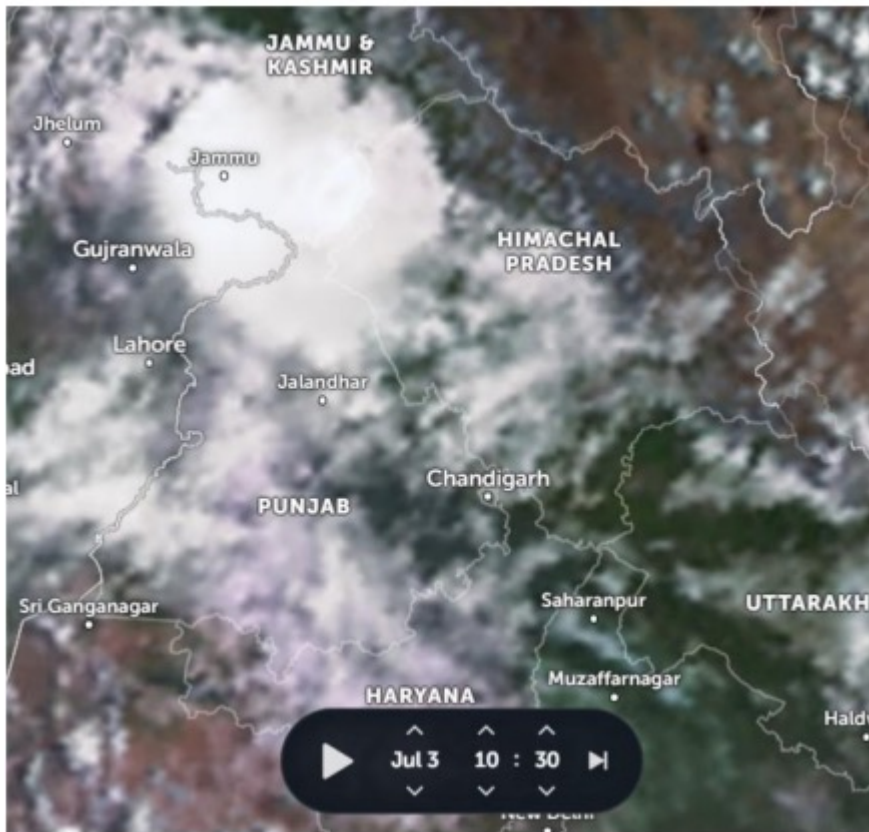
Imaging mode: SPOT (Left)

Orbit Direction: Descending

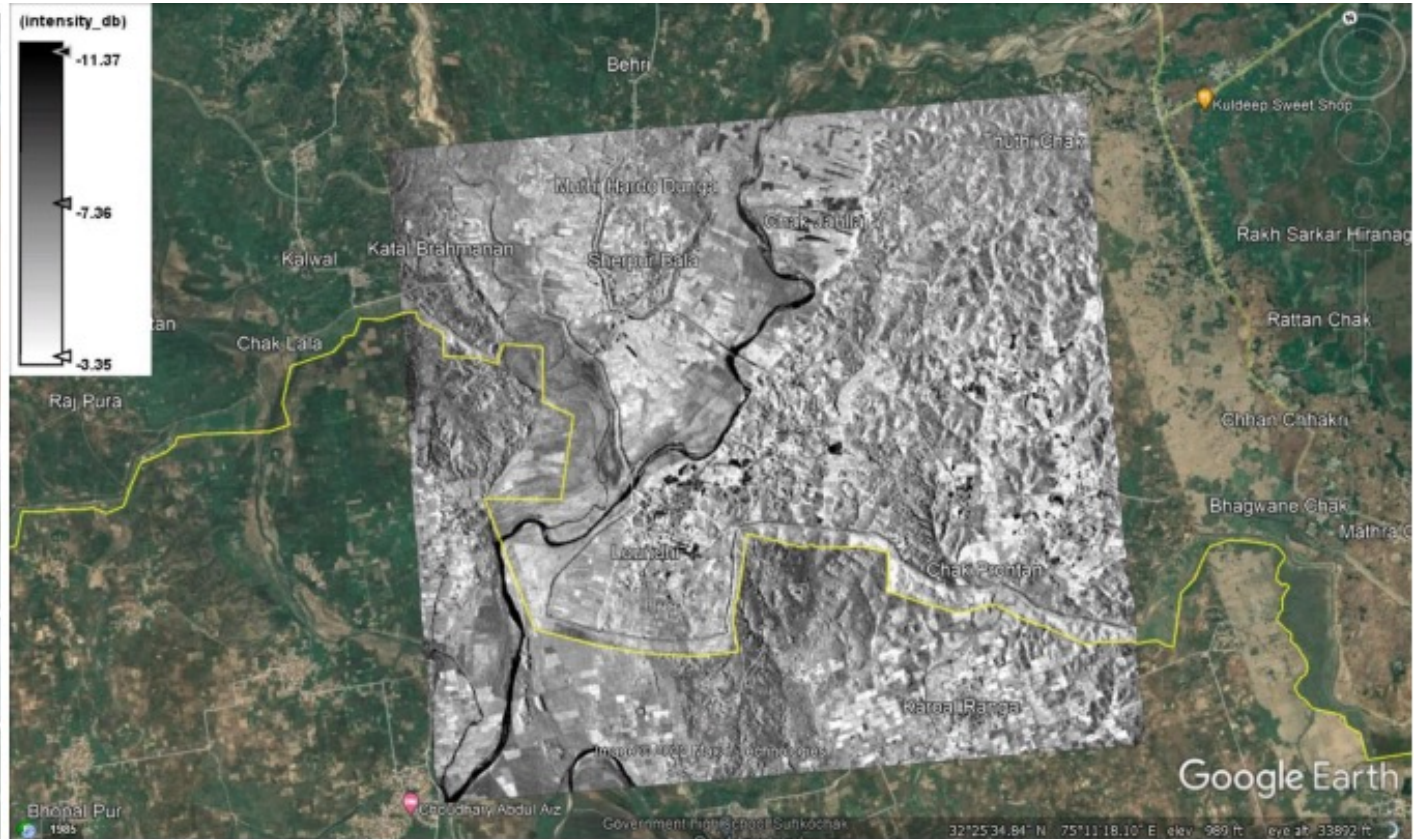
Incidence angle (center): 22.28

Center coordinates (LAT, LON):
32.4084, 75.2169

Site Monitoring and Detection



Cloudy Optical Data
3rd July 2022

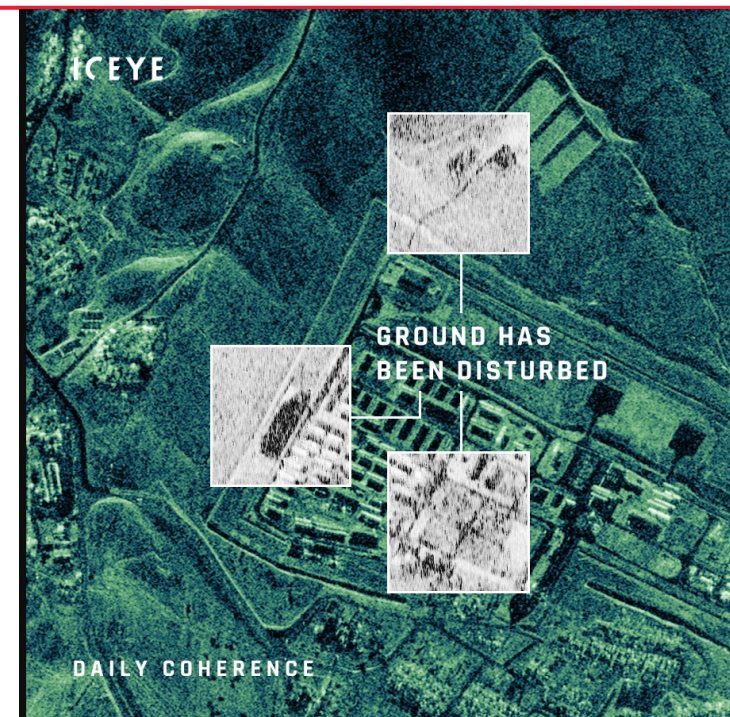
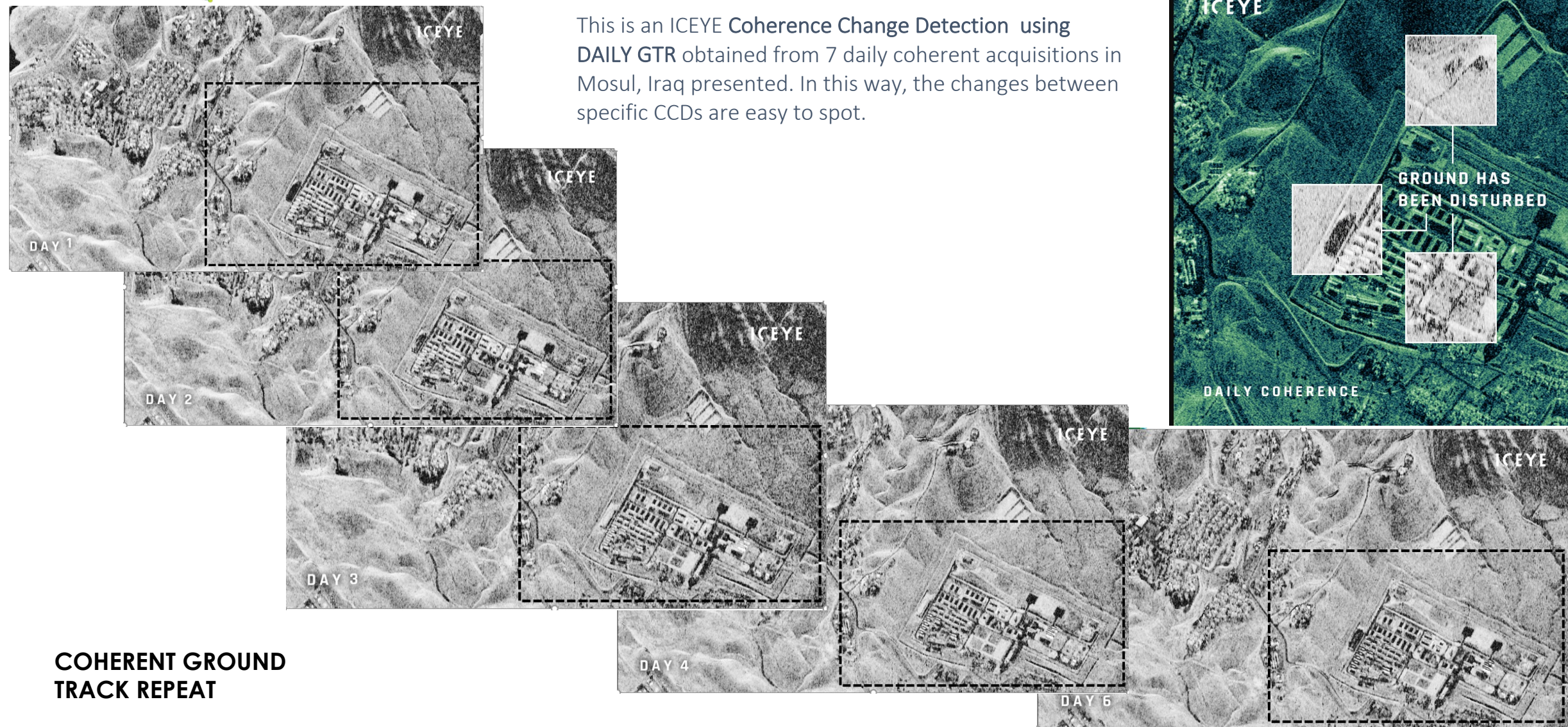


SAR Data
3rd July 2022

Strategic Site Monitoring



This is an ICEYE Coherence Change Detection using DAILY GTR obtained from 7 daily coherent acquisitions in Mosul, Iraq presented. In this way, the changes between specific CCDs are easy to spot.

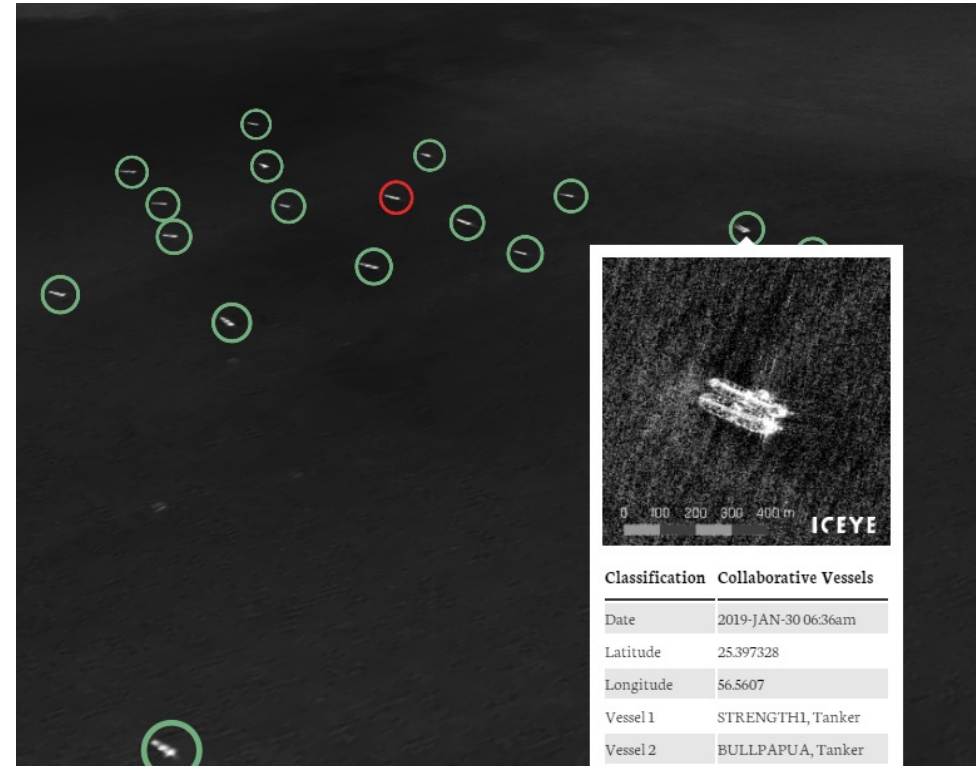
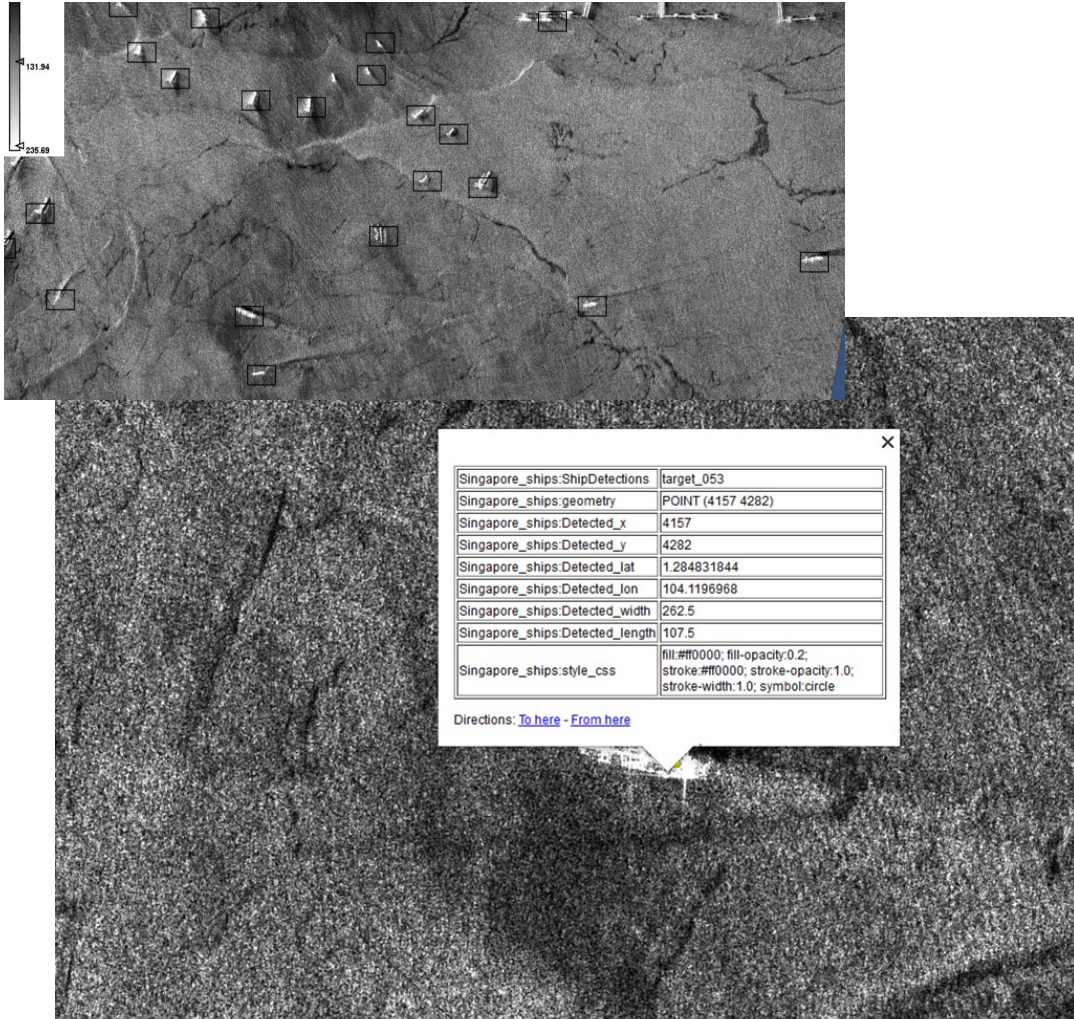


**COHERENT GROUND
TRACK REPEAT**

SAR Based Dark Vessel Detection

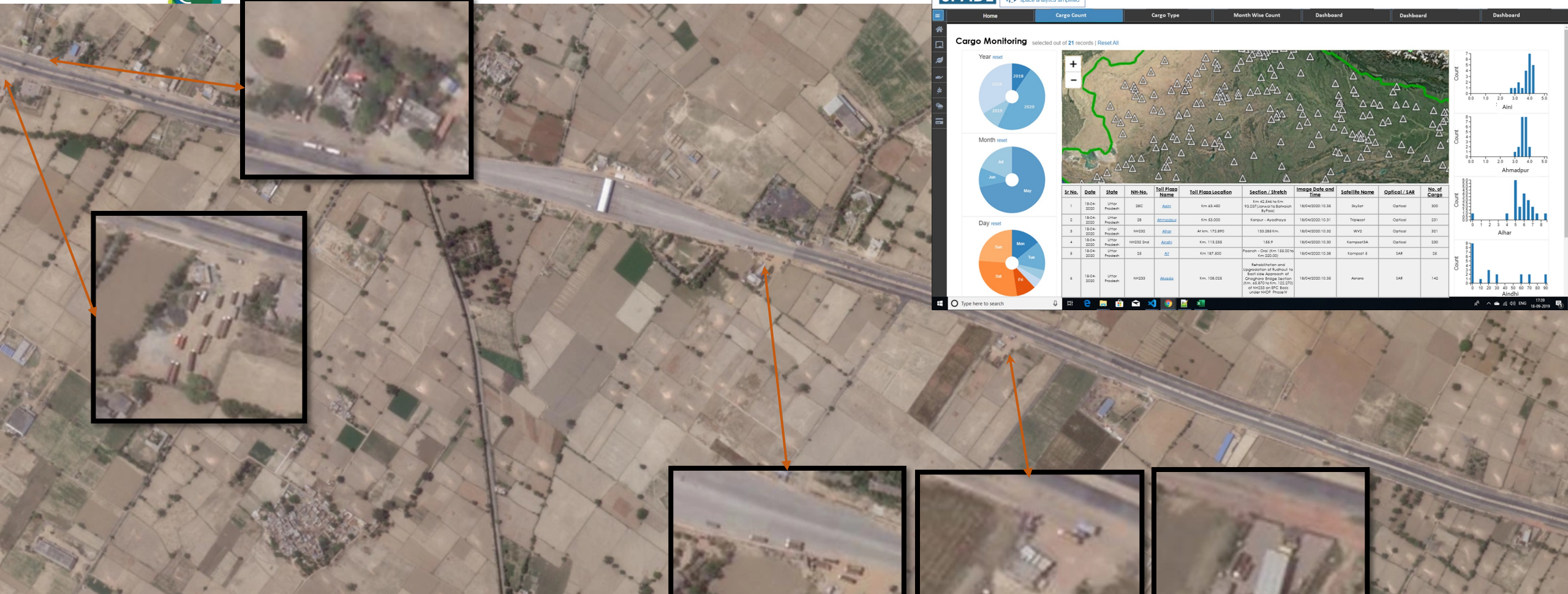


CASE: 1 Singapore Strait



DETECTED TRANS-SHIPMENT
The high imaging resolution of ICEYE SAR satellites enable identifying potential transshipment between vessels.

AI based Vehicle Detection



SPADE SUHORA space analytics simplified

Home Cargo Count Cargo Type Month Wise Count Dashboard Dashboard Dashboard

Cargo Monitoring selected out of 21 records | Reset All

Year reset: 2018, 2019, 2020

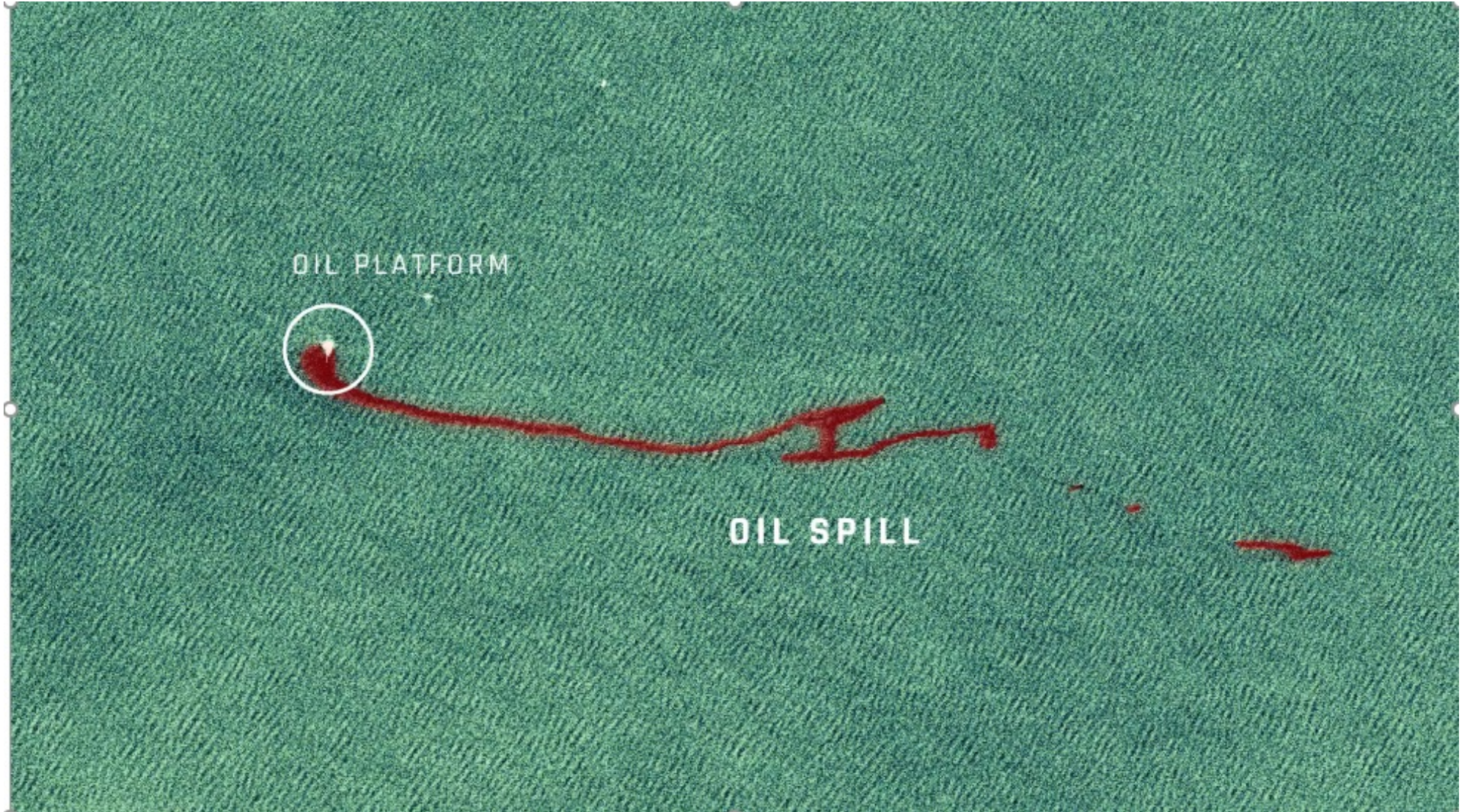
Month reset: Jul, Aug, Sep, Oct, Nov, Dec, Jan, Feb, Mar, Apr, May, Jun

Day reset: Sun, Mon, Tue, Wed, Thu, Fri, Sat

Sr.No.	Date	State	NH-No.	Toll Plaza Name	Toll Plaza Location	Section / Stretch	Image Date and Time	Satellite Name	Optical / SAR	No. of Cargo
1	18-04-2020	Uttar Pradesh	28C	Aloti	Km 63.480	Km 42.848 to Km 63.000 (Uppal to Bahoun By Pass)	18/04/2020:10:36	SkySat	Optical	300
2	18-04-2020	Uttar Pradesh	28	Ahmadpur	Km 83.000	Konpur - Ayodhya	18/04/2020:10:31	Trisat	Optical	231
3	18-04-2020	Uttar Pradesh	NH232	Alhar	At km. 172.890	133.388 km.	18/04/2020:10:32	WV2	Optical	231
4	18-04-2020	Uttar Pradesh	NH232 Div	Aloti	Km. 113.266	168.9	18/04/2020:10:30	Kompass3A	Optical	230
5	18-04-2020	Uttar Pradesh	35	Al	Km 187.800	Peeran - Chp (Km. 165.000 to Km.202.000)	18/04/2020:10:38	Kompass 6	SAR	26
6	18-04-2020	Uttar Pradesh	NH232	Alotia	Km. 108.026	Rehabilitation and Upgradation of Road/Out to Border Approach of Chughra Bridge Section (Km. 68.876 to Km. 122.370) of NH-232 on CPC Basis under NHCP Priority	18/04/2020:10:35	Amara	SAR	142

Truck count: 53

Oil Spill Detection

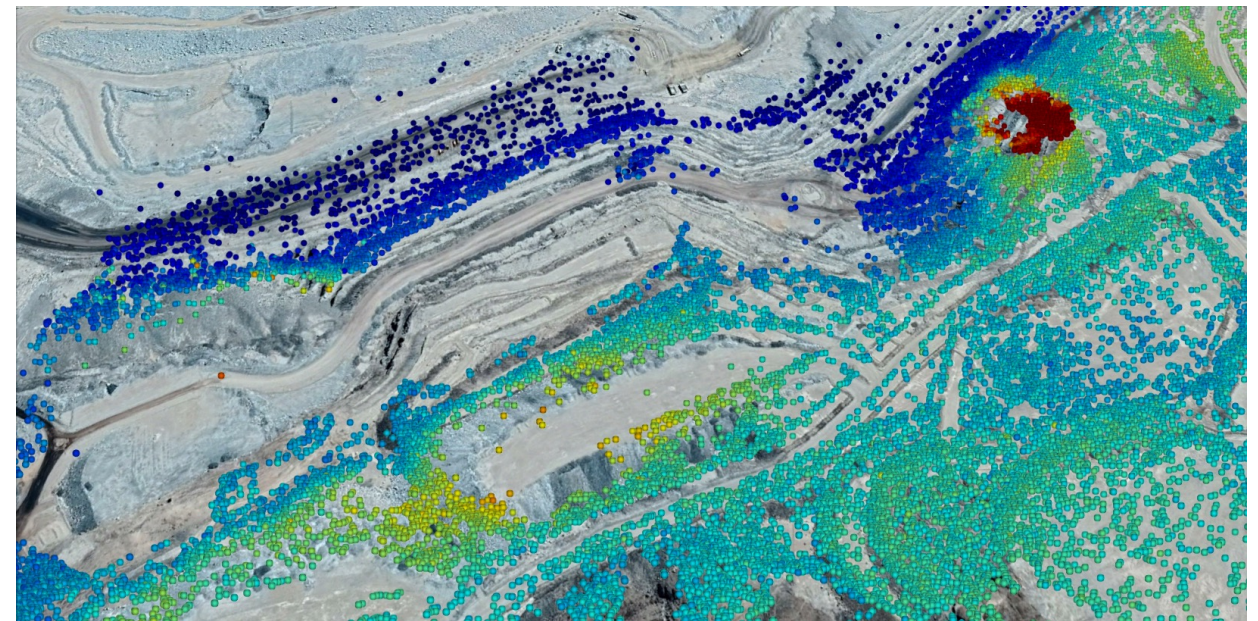
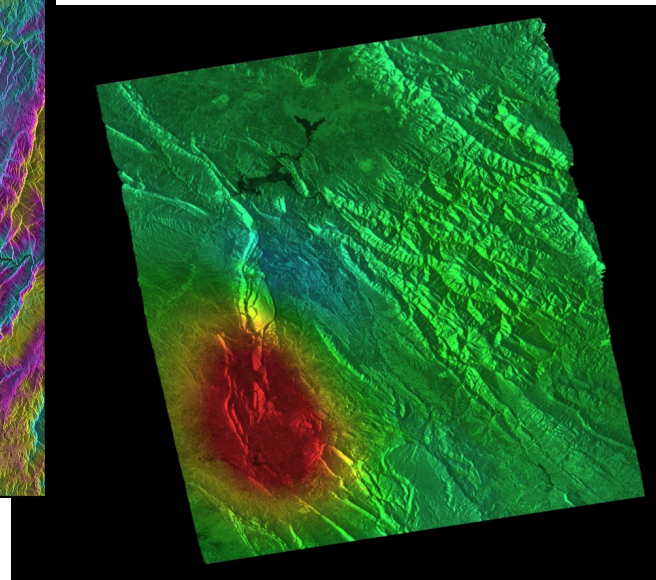
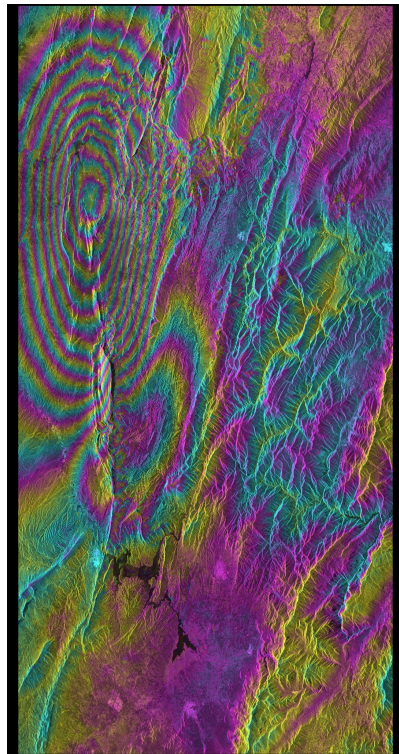


Slope Stability-Infrastructure Monitoring



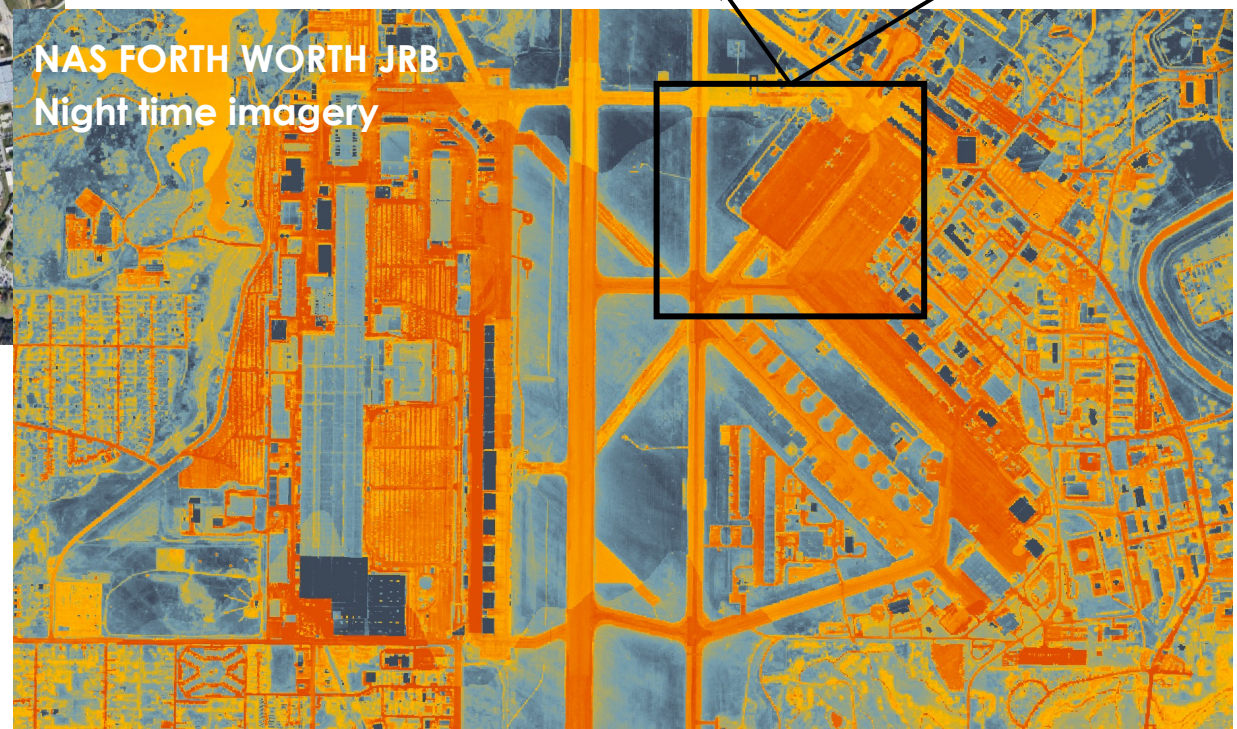
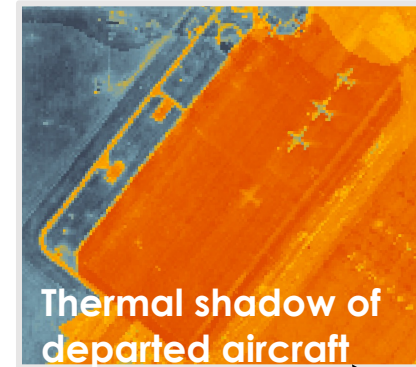
Get actionable reports and Measure Ground changes upto millimeter Level.

- Ground Deformation and Land Subsidence Monitoring using InSAR Techniques.
- Mine caving/ DAM Stability Monitoring using PS-InSAR Techniques



PSI deformation map showing points colorized by deformation rate at Rossing Uranium Mine in Namibia. One location (red) shows significant and continuous deformation on the steeply sloped edge of the mine.

Thermal Imaging Applications



High Res Optical Monitoring



Possible Missile Launch Pad

Length: 14m

New
Construction
Activity

The Jilantai PLARF Training Area
Imaging Date: 03rd March 2021

High Res Optical Monitoring



Suspected anti-satellite facility in China

Team Suhora thanks you..



Rupesh Kumar
CTO and Co-Founder



Amit Kumar
COO and Co-Founder



Krishanu Acharya
CEO and Co-Founder